FIELD-INSTALLABLE CONNECTOR INCLUDING STUB OPTICAL FIBER HAVING LASER SHAPED ENDFACE

ABSTRACT OF THE DISCLOSURE

[0040] A field-installable connector includes a connector housing and a ferrule having front and rear opposed faces and at least one fiber bore defined longitudinally therethrough. A laser processed stub optical fiber is disposed within the one fiber bore of the ferrule and extends a predetermined distance beyond the rear face of the ferrule. An alignment feature is operable for self-centering the stub optical fiber and a field optical fiber to perform a mechanical splice using a camming means. A method of laser processing a stub optical fiber includes rotating the stub optical fiber and sweeping a laser beam directed at a desired angle back and forth across a surface of the optical fiber. An oscillating motion of the laser is driven by an intermittent sinusoidal signal that results in two deposits of energy onto the stub optical fiber followed by a cooling period before subsequent deposits of energy occur.